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AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1-19. (Canceled)

20. (Previously Presented) A particle production system comprising:

a plurality of reactant inlets configured to direct a plurality of independent reactant streams configured to form independent product streams toward one or more product outlets; and

a particle collection apparatus connected to the one or more product outlets to collect the product particles generated by the reactants from the plurality of reactant inlets, wherein the particle collection apparatus is configured to receive product particles generated from the plurality of reactant streams.

21. (Original) The particle production system of claim 20 with a single reaction chamber.

22. (Currently Amended) The particle production system of claim 21 comprising a reactant delivery system ~~that delivers~~configured to deliver different reactants to at least two of the plurality of reactant inlets having a flow separated by shielding gas.

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23. (Original) The particle production system of claim 20 comprising a plurality of reaction chambers, each reaction chamber comprising a product outlet.

24. (Original) The particle production system of claim 23 comprising a manifold connected to the product outlets of the reaction chambers such that the product particles are mixed within the manifold.

25. (Original) The particle production system of claim 23 wherein at least two reaction chambers are aligned such that a single light beam passes through the two reaction chambers.

26. (Currently Amended) The particle production system of claim 23 wherein at least one of said reaction chambers comprises a reactant delivery system ~~that delivers~~ configured to deliver different reactants to at least two reactant inlets having a flow separated by shielding gas.

27. (Original) The particle production system of claim 20 comprising three reaction chambers.

28-51. (Canceled)

52. (Previously Presented) The particle production system of claim 23 wherein the number of reactant inlets and product outlets are equal and each reaction chamber includes one of the reactant inlets configured to direct a reactant stream within the reactant chamber.

53. (Previously Presented) The particle production system of claim 23 wherein at least one reaction chamber includes a plurality of reactant inlets within the reactant chamber.

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54. (Previously Presented) The particle production system of claim 20 wherein the plurality of reactant inlets is two reactant inlets.

55. (Previously Presented) The particle production system of claim 20 wherein the plurality of reactant inlets is three reactant inlets.

56. (Previously Presented) The particle production system of claim 20 comprising a plurality of product outlets and a manifold connected to the product outlets such that the product particles are mixed within the manifold.

57. (Previously Presented) The particle production system of claim 56 wherein two reactant streams generate product particles with different compositions from each other.

58. (Previously Presented) The particle production system of claim 20 wherein the collection apparatus comprises a cylindrical filter positioned to collect a substantial amount of the product particles from the one or more product outlets.

59. (Previously Presented) The particle production system of claim 20 wherein the collection apparatus comprises a tank with a plurality of filters, the tank having an inlet and an exhaust, wherein the tank inlet is connected to the one or more product outlets.

60. (Previously Presented) The particle production system of claim 59 wherein a manifold connects a plurality of product outlets with the tank inlet.

61. (Previously Presented) The particle production system of claim 59 wherein the collection apparatus further comprises a collection container to collect particles dislodged from the plurality of filters.

62. (Previously Presented) The particle production system of claim 61 wherein the collection apparatus further comprises a valve connecting the collection container with the tank.

63. (Previously Presented) The particle production apparatus of claim 20 wherein a radiation pathway intersects each of the independent reactant streams.

64. (Previously Presented) The particle production apparatus of claim 20 wherein a single radiation pathway intersects the plurality of independent reactant streams.